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AIMS Education Foundation

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Table of Contents

Index to Skills

MATH SKILLS

SCIENCE PROCESSES

Introduction

Many of the experiences in life seem to just "fall into place." We do not always plan these experiences, and sometimes we trip over them. This is especially true in elementary education when it comes to science. Unfortunately, many times we even "fall on our face" when approaching science.

This is not necessarily due to a lack of knowledge or a dislike of science; many times, it is due to a sense of being uncomfortable with the demands and vagueness of a science textbook. You are not only invited to fall into math and science, but to leap in, wallow around, and come out dripping with excitement!

The Project AIMS series for K-1 is based on seasons to make it convenient for you to incorporate these investigations into your present curriculum. Because of the peak learning experiences you will present to your students, they will be "falling all over themselves" to become involved.

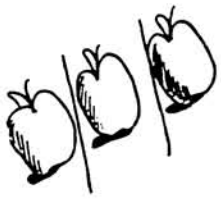
This series is not designed with a specific scope and sequence, where each succeeding lesson is based on the preceding lessons. The investigations are written in such a way that your students will discover the true meaning of math and science integration—application of knowledge in the real world.

The Project AIMS K-1 series allows for flexibility for usage in your classroom. Use your own judgment to find the appropriate usage and development for each investigation.

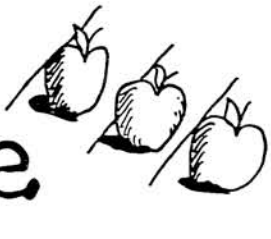
Lest your principal and the parents of your students think you have "fallen off your rocker," and are no longer teaching math, each investigation has been provided with a student page to send home with your students.

This booklet is not intended to replace your science program, but is intended to be used as a supplement to the math-science curriculum. Remember that these experiments place prime emphasis on the science processes and skills. It is not necessary to have a laboratory and elaborate equipment to run a strong science program. All that is really needed is everyday materials and your willingness to try new ideas. GOOD LUCK!

—The K-1 Series Writing Team



Apples A Peel To Me



I. **Topic Area**

Apples

II. **Introductory Statement**

Students will learn about the different varieties of apples.

III. **Key Question**

How many different words can we use to describe an apple?

IV. **Math Skills**

a. Graphing
   1. Whole number computation
   2. Solving simple equations
   3. Using a formula
   4. Ordinal numbers
   5. Predicting
b. Fractional numbers
c. Equations
d. Geometry
e. Sorting

Science Processes

a. Observing and classifying
b. Comparing
c. Applying and generalizing
d. Controlling variables
e. Gathering and recording data
f. Interpreting data
g. Measuring

V. **Materials**

- Red, green, and yellow apples—a different number of each color allows variance on the graph (if extension activities are to be used, allow one of each color apple for every four students; the applesauce recipe will require an additional eight apples)
- Posterboard and marking pens for graph (see advanced preparation)
- One student graph per child (provided for duplication)
- Red, green, and yellow crayons—one of each color per child

VI. **Background Information**

The different varieties of apples are readily available in late September to early November.

VII. **Management**

1. This activity works well in a whole class situation with teacher supervision.
2. The discussion and graphing activities will take approximately 30-45 minutes.

VIII. **Advanced Preparation**

1. Purchase apples.
2. Prepare classroom graph.
3. Duplicate and distribute student graph and crayons.

IX. **Procedure**

1. The teacher asks the key question, "What words can be used to describe an apple?" The teacher lists these describing words on chart paper or the chalkboard to be used in later language extension activity.
2. The students count the apples as the teacher removes them from a bag.
3. The teacher asks the students how the apples could be sorted into different groups based on the types of describing words they used in Step 1 (size, shape, color). The apples are then sorted by selected students into three color groups.
4. Have the entire class count the number of apples in each color group. Color in one box in the corresponding colored column of the class graph. Have the children duplicate this procedure on their individual graphs until all the apples in the red color group have been graphed. Repeat this procedure for each remaining color group.
5. Discuss the graph.

X. **Discussion**

1. What is different about all these apples? What is similar?
2. What kinds of things about apples can we learn from reading our class graph? What things will our graph not tell us? How could we answer these questions?
3. What types of other activities could we do with apples?

XI. **Extensions**

1. Graphing ideas:
   a. Have a taste test and graph each child's preference.
   b. Peel, core, and slice different varieties of apples so children do not know the color. Have the children taste the apples and graph their color prediction.
2. Make applesauce in small groups.

   Applesauce

   8 medium cooking apples—cut into fourths
   ½ cup water
   ½ cup packed brown sugar
   ¼ teaspoon ground cinnamon
   ¼ teaspoon ground nutmeg

   Heat apples and water to boiling over medium heat; reduce heat. Simmer uncovered, 5 to 10 minutes. Stir in remaining ingredients. Heat to boiling and stir 1 minute.

   Can be served in paper cups with a spoon or on graham crackers.

XII. **Curriculum Coordinates**

Language Arts

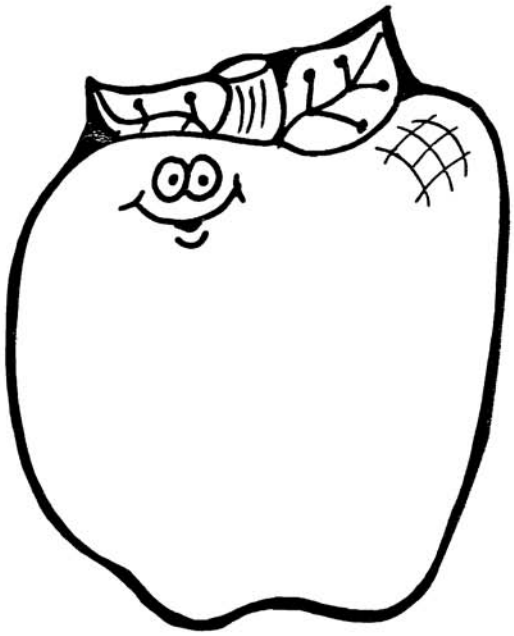
1. Make an apple book using the student's describing words from the chalkboard. The student's page could be duplicated from the apple pattern provided.
2. Read books and discuss the life of Johnny Appleseed.

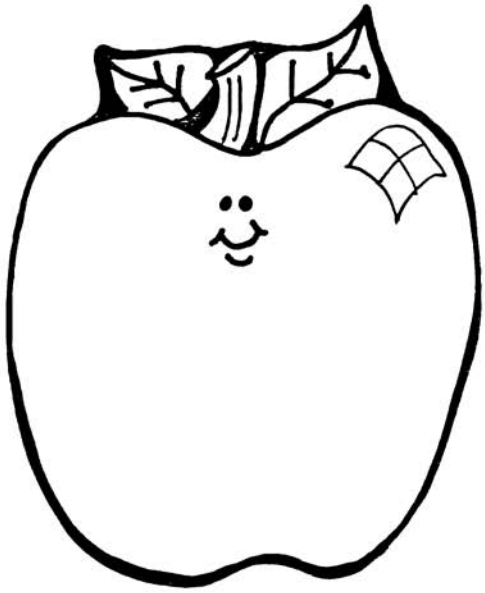
Physical Education

1. Place the children into relay teams of 8-10 members. Give each captain an apple and place it under his/her chin. Have each team pass the apple down his or her team line, from chin to chin, using no hands.
2. Bob for apples in a tub of water.

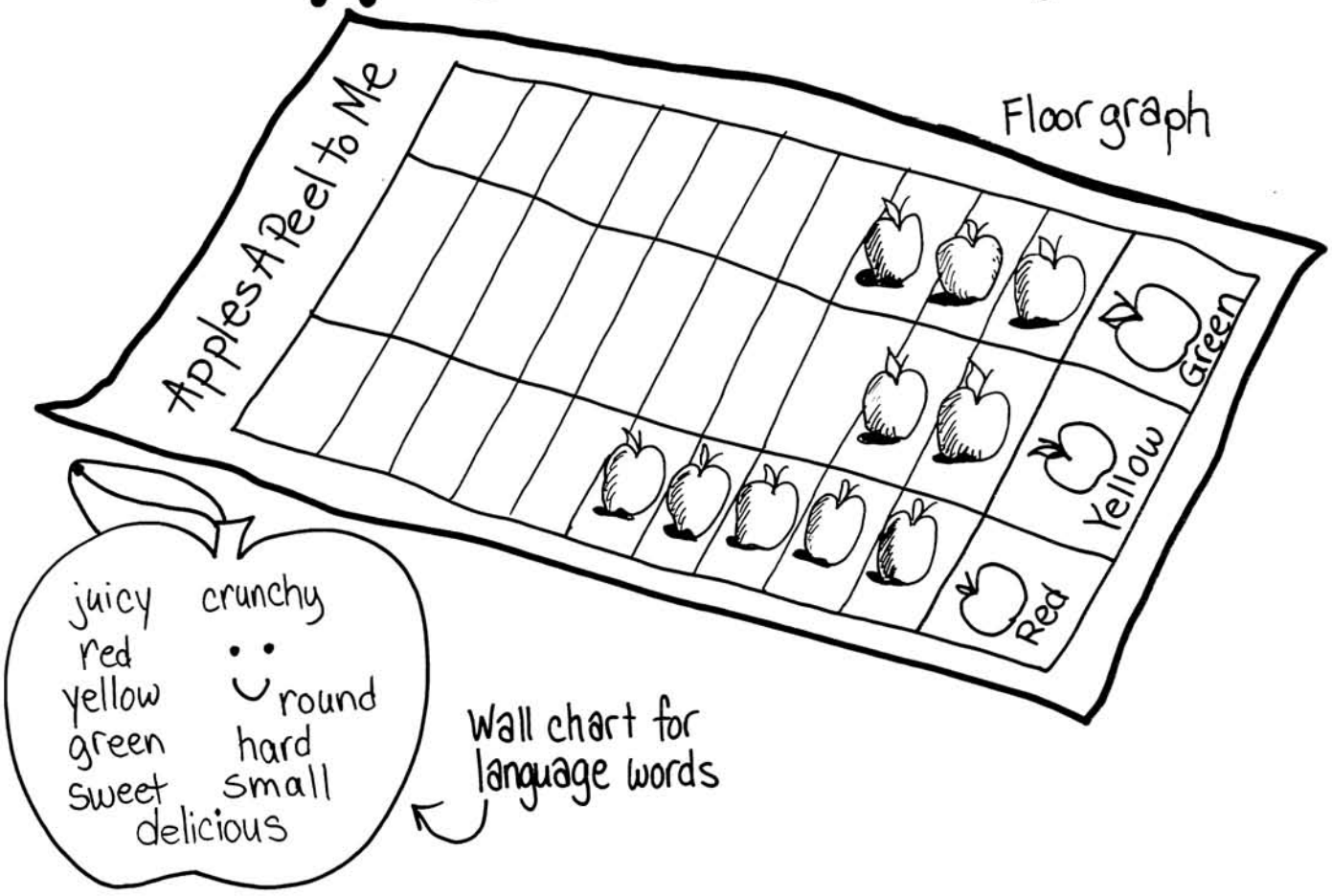
Art

1. Make apple prints. Cut apples in half and place cut side down in pans of autumn colored tempera paint. Press the apple onto white construction paper to create an apple print.

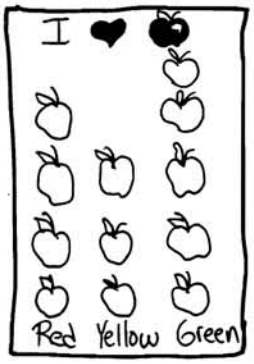




Apples A Peel To Me



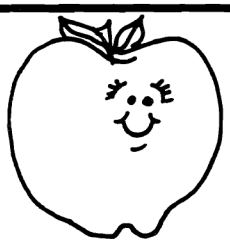
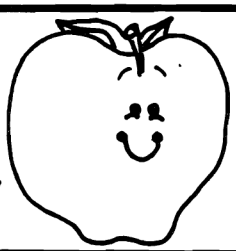
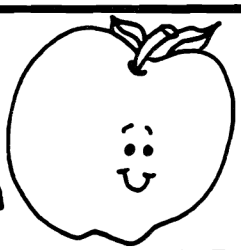
Ask the students how the apples could be sorted according to their describing words. Then have selected students sort them into 3 color groups. Have the entire class count the number of apples in each color group as you place them on the floor graph. As you remove each red apple, color in the box it was in. Have the students duplicate this process on their individual graphs. Repeat this process for each remaining color group. Discuss the graph.



For a representational graph, use the page of apple faces for a taste test graph. Have each student pick the color of the apple that they prefer, put their name on the apple and glue to a wall graph or the chalkboard.

Apples A Peel to

Name _____

Red 	Yellow 	Green 

Apple Art

The Apple Tree Cycle

Make a large apple shaped chart with these instructions →

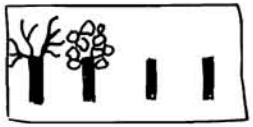
You will need:

* 12"x18" construction
* 4"x1" brown construction for tree trunks (4 per child)
* brown crayon
* pink, green, red, orange, & yellow tempura paint
* carrot slices
* sponge pieces for each color of paint

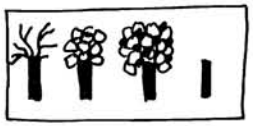
1. Glue 4 pieces of brown paper on your paper to make tree trunks

2. Use a brown crayon and draw branches on the first tree for winter.

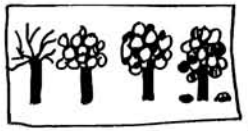
3. Sponge pink paint on the second tree for spring.

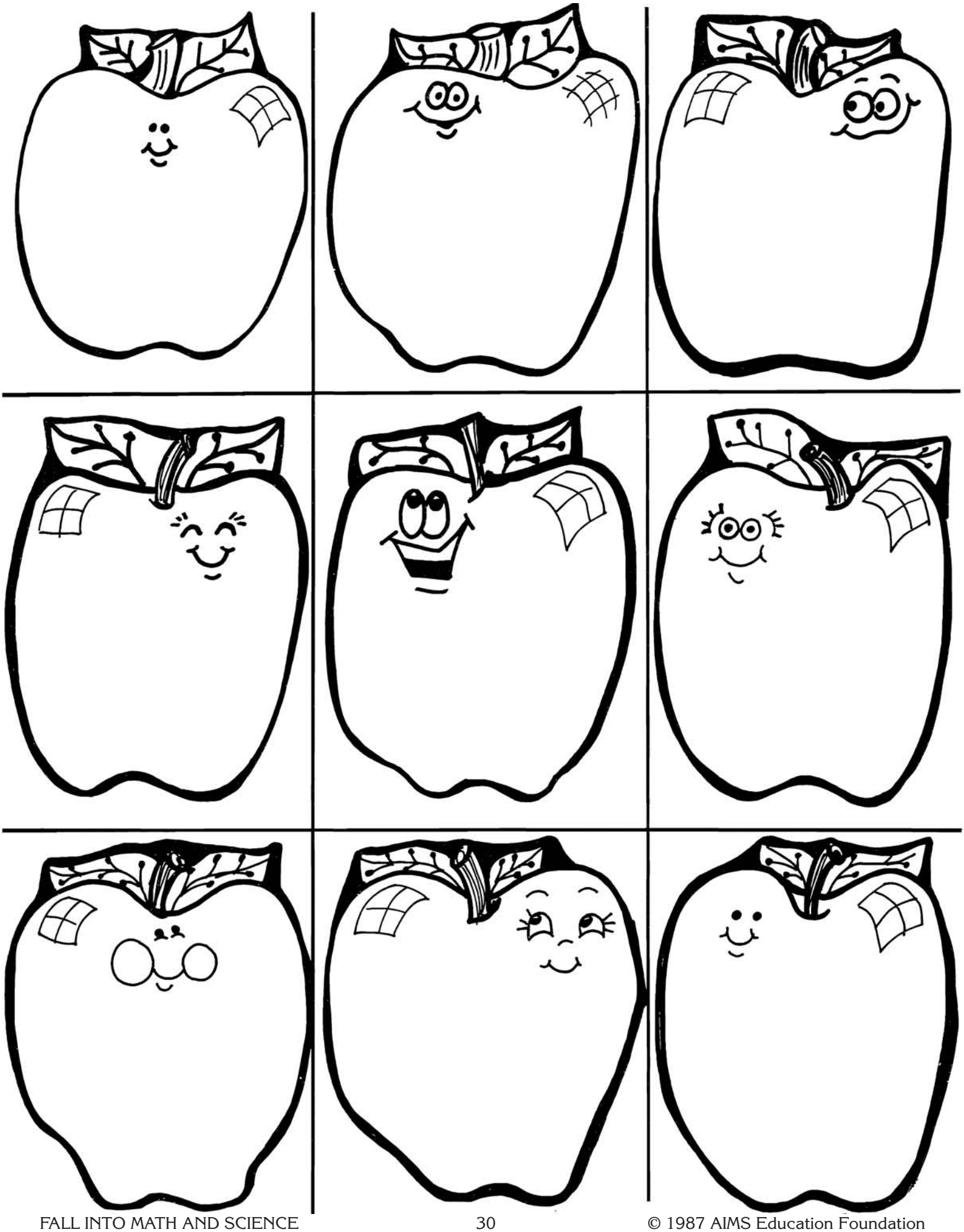


4. Sponge green paint on the third tree and print red apples with a piece of carrot for summer.

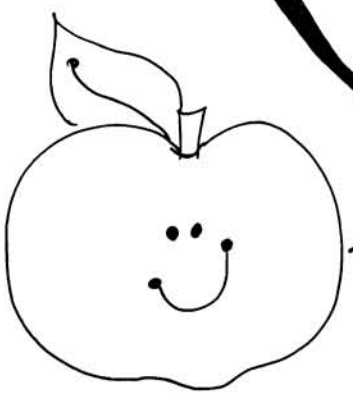


5. Sponge red, yellow, and orange paint on the last tree for fall.





Student Worksheet
Apple Experience Story



Run this pattern off on red construction paper and use as a cover for an Apple Book. Use the children's describing words from the chalkboard.

This certificate is to guarantee that

_____ **is a**

Good

Teacher _____ Date _____

